

Application No. 10/766,505  
Response dated December 5, 2006  
Reply to Office Action of July 6, 2006

### **Listing of Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims **1-24** (canceled).

**25.(currently amended)** An electrical-circuit inductor for an ICP source comprising:  
a conductor formed of a sheet of electrically conductive material in the shape of at least  
one loop having opposite edges encircling an axis, the sheet having:  
a gap extending between the opposite edges and defining a pair of terminal  
ends[,] and  
a pair of RF connectors, one fixed to each of the terminal ends; and  
~~the opposite edges including an inner edge and an outer edge, each having a~~  
~~plurality of cutouts therein that require RF current flowing between the terminal ends to flow~~  
~~around the outside of the cutouts in the inner edge and around the inside of the cutouts in~~  
~~the outer edge, wherein:~~  
~~the cutouts are alternately spaced in the inner and outer opposite edges,~~  
~~the cutouts in the outer edge extend sufficiently radially inward to interrupt the~~  
~~shortest current paths around the outside of the cutouts in the inner~~  
~~edge.~~  
~~the cutouts in the inner edge extend sufficiently radially outward to interrupt~~  
~~the shortest current paths around the inside of the cutouts in the outer~~  
~~edge;~~  
~~the opposite edges thereby define [defining] a sinuous serpentine conductive~~  
~~path that alternately curves inwardly around the outside of the cutouts~~  
~~in the inner edge and curves outwardly around the inside of the~~  
~~cutouts in the outer edge, in a plurality of oscillations between the~~  
~~terminal ends; and~~  
[that is formed of] ~~the~~ at least one loop includes a series of segments of  
alternating high and low cross-sections and widths.

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**26.(previously presented)** An ICP source comprising the electrical-circuit inductor of claim 25 and further comprising:

an RF power source connected across the ends of the conductor;  
a dielectric window having a vacuum chamber side and an outside;  
the inductor being adjacent the outside of the dielectric window, generally congruent thereto, the widths being generally parallel to the dielectric window and the thicknesses being generally perpendicular to the dielectric window.

**27.(previously presented)** An ICP apparatus comprising the inductor of claim 25 and further comprising:

a vacuum processing chamber having a chamber wall having a dielectric window therein; and  
the inductor being outside of the chamber, generally congruent to the dielectric window, the widths of the segments being generally parallel to the dielectric window and thicknesses of the segments being generally perpendicular to the dielectric window.